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- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

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For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: PTPRK IMMUNOGENIC PEPTIDE

(57) Abstract: An immunogenic peptide isolated from PTPRK protein represents a novel HLA II restricted epitope recognized by CD4⁺T cells and is used in cancer immunotherapy or diagnosis.

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INTERNATIONAL SEARCH REPORT

International Application No

PCT/EP 03/12638

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 C07K14/47 C07K16/32 A61K39/00 C12Q1/68

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 C07K A61K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, BIOSIS, WPI Data, PAJ, CHEM ABS Data, Sequence Search

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
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P,X	NOVELLINO LUISA ET AL: "Identification of a mutated receptor-like protein tyrosine phosphatase kappa as a novel, class II HLA-restricted melanoma antigen." JOURNAL OF IMMUNOLOGY (BALTIMORE, MD. : 1950) 15 JUN 2003, vol. 170, no. 12, 15 June 2003 (2003-06-15), pages 6363-6370, XP002291065 ISSN: 0022-1767 the whole document	1-14
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Further documents are listed in the continuation of box C.



Patent family members are listed in annex.

* Special categories of cited documents:

A document defining the general state of the art which is not considered to be of particular relevance

E earlier document but published on or after the international filing date

L document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

O document referring to an oral disclosure, use, exhibition or other means

P document published prior to the international filing date but later than the priority date claimed

T later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

X document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

Y document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

& document member of the same patent family

Date of the actual completion of the international search

3 August 2004

Date of mailing of the international search report

25/08/2004

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INTERNATIONAL SEARCH REPORT

International Application No

PCT/EP 03/12638

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	ZHANG Y ET AL: "Cytogenetical Assignment and Physical Mapping of the Human R-PTP-kappa Gene (PTPRK) to the Putative Tumor Suppressor Gene Region 6q22.2-q22.3" GENOMICS, ACADEMIC PRESS, SAN DIEGO, US, vol. 51, no. 2, 15 July 1998 (1998-07-15), pages 309-311, XP004449104 ISSN: 0888-7543 -----	
A	YANG YOUNG ET AL: "Transforming growth factor-beta-1 inhibits human keratinocyte proliferation by upregulation of a receptor-type tyrosine phosphatase R-PTP-kappa gene expression" BIOCHEMICAL AND BIOPHYSICAL RESEARCH COMMUNICATIONS, vol. 228, no. 3, 1996, pages 807-812, XP002291066 ISSN: 0006-291X -----	
P,A	NAKAMURA MITSUTOSHI ET AL: "Novel tumor suppressor loci on 6q22-23 in primary central nervous system lymphomas." CANCER RESEARCH, vol. 63, no. 4, 15 February 2003 (2003-02-15), pages 737-741, XP002291067 ISSN: 0008-5472 -----	
A	WO 94/24161 A (UNIV NEW YORK ; MAX PLANCK GESELLSCHAFT (DE)) 27 October 1994 (1994-10-27) -----	

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Continuation of Box I.1

Although claims 11 and 12 are directed to a method of treatment of the human/animal body, the search has been carried out and based on the alleged effects of the compound/composition.

Although claims 13 and 14 are directed to a diagnostic method practised on the human/animal body, the search has been carried out and based on the alleged effects of the compound/composition.

Continuation of Box I.1

Claims Nos.: -

Rule 39.1(iv) PCT - Method for treatment of the human or animal body by therapy

Rule 39.1(iv) PCT - Diagnostic method practised on the human or animal body

INTERNATIONAL SEARCH REPORT

International application No.
PCT/EP 03/12638

Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☒ Claims Nos.: —
because they relate to subject matter not required to be searched by this Authority, namely:
see FURTHER INFORMATION sheet PCT/ISA/210
2. ☐ Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/EP 03/12638

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
WO 9424161	A	27-10-1994	US 5863755 A	26-01-1999
			AU 6710094 A	08-11-1994
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			EP 0754191 A1	22-01-1997
			JP 8510904 T	19-11-1996
			WO 9424161 A1	27-10-1994
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			US 2002082397 A1	27-06-2002
